

Appl. No. 10/710,673
 Amdt. dated May 10, 2006
 Reply to Office action of March 02, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1 (currently amended): A booster comprising:

5 a boosting circuit for boosting an input voltage to a predetermined output voltage,
the boosting circuit comprising a transistor for controlling the boosting circuit
to adjust the output voltage;

an oscillator for generating oscillating signals when the boosting circuit boosts the
 input voltage; and

10 a voltage detector electrically connected to the boosting circuit for controlling the
transistor of the boosting circuit to switch off and prevent the boosting circuit
from adjusting the output voltage when detecting when that the output voltage
of the boosting circuit reaches a predetermined voltage, the voltage detector
comprising: - and

15 a diode;
a first resistor;
a second resistor;
a third resistor; and

20 a bipolar junction transistor (BJT);
wherein an emitter of the BJT is grounded, a collector of the BJT is electrically
connected to a first end of the first resistor, a base of the BJT is electrically
connected to first ends of the second and the third resistors, a second end
of the second resistor is grounded, a second end of the third resistor is
electrically connected to a positive pole of the diode, and a negative pole
 25 of the diode is electrically connected to both a second end of the first
resistor and the output voltage of the boosting circuit,

~~an AND gate, wherein a first input end of the AND gate is electrically connected to~~

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5 ~~an output of the oscillator, and a second input end of the AND gate is~~
 ~~electrically connected to an output of the voltage detector for preventing the~~
 ~~oscillating signals produced by the oscillator from being provided to the~~
 ~~boosting circuit when the output voltage of the boosting circuit reaches the~~
 ~~predetermined voltage.~~

2 (cancelled).

10 3 (previously presented): The booster of claim 1 wherein the oscillator is a ring oscillator.

4 (currently amended): The booster of claim 1 wherein the oscillator further comprises a
 frequency control circuit for ~~adjusting~~ setting the frequency of the oscillating signal
 generated by the oscillator.

15 5 (original): The booster of claim 1 wherein the input voltage is provided by a fuel cell.

6 (cancelled).

20 7 (currently amended): The booster of ~~claim 6~~ claim 1 further comprising a pair of
 series-connected inverters electrically connected to the collector of the BJT for
 adjusting a logic level.

25 8 (currently amended): The booster of ~~claim 6~~ claim 1 wherein the second resistor or the
 third resistor is a variable resistor.

9 (currently amended): The booster of ~~claim 6~~ claim 1 wherein the diode is a zener diode.

10 (currently amended): A method of boosting battery output, the battery electrically

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connected to a booster comprising a boosting circuit, an oscillator, and a voltage detector, the voltage detector comprising a diode, a first resistor, a second resistor, a third resistor, and a bipolar junction transistor (BJT), the method comprising:
detecting an output voltage of the booster with the voltage detector;
5 providing an AND gate having, wherein a first input end of the AND gate is electrically connected to an output of the oscillator, and a second input end of the AND gate is electrically connected to an output of the voltage detector;
when the output voltage is lower than a predetermined voltage, the voltage detector controlling a transistor of the boosting circuit to turn on for adjusting the output
10 voltage using periodic pulse signals generated by the oscillator with the oscillator generating a periodic pulse signal for controlling a transistor of the booster to execute an on/off operation for adjusting the output voltage; and
when the output voltage reaches the predetermined voltage value, with the voltage detector generating a voltage signal whose logic level is zero for turning off the
15 transistor for preventing the boosting circuit from adjusting the output voltage;
wherein an emitter of the BJT is grounded, a collector of the BJT is electrically connected to a first end of the first resistor, a base of the BJT is electrically connected to first ends of the second and the third resistors, a second end of the
second resistor is grounded, a second end of the third resistor is electrically
20 connected to a positive pole of the diode, and a negative pole of the diode is electrically connected to both a second end of the first resistor and the output voltage of the boosting circuit.

11 (cancelled).

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12 (currently amended): The method of claim 10 wherein the oscillator further comprises a frequency control circuit for adjusting setting the frequency of the oscillating signal generated by the oscillator.

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13 (original): The method of claim 10 wherein the battery is a fuel cell.

14 (cancelled).

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15 (currently amended): The method of ~~claim 14~~ claim 10 wherein the voltage detector further comprises a pair of series-connected inverters that are electrically connected to the collector of the BJT for adjusting a logic level.

10 16 (currently amended): The method of ~~claim 14~~ claim 10 wherein the second resistor or the third resistor is a variable resistor.

17 (currently amended): The method of ~~claim 14~~ claim 10 wherein the diode is a zener diode.

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